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August 2, 2007

TO (FIRM): Examiner Ganapathy KRISHNAN
Group Art Unit: 1623
USPTO

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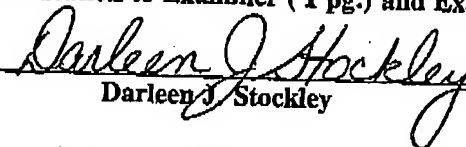
RE: U.S. Serial No. 10/521,022
OUR DOCKET: 1628.1016

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the below-listed correspondence is being transmitted via facsimile to: Examiner Ganapathy Krishnan, USPTO, Washington, D.C. on August 2, 2007

Communication to Examiner (1 pg.) and Examiner's Amendment (4 pgs.)

By:


Darleen J. Stockley

Date: August 2, 2007

NO. OF PAGES (Including this Cover Sheet) 6

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Docket No.: 1628.1016

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Jae-Sung KANG, et al.

Serial No. 10/521,022

Group Art Unit: 1623

Confirmation No. 9483

Filed: January 12, 2005

Examiner: KRISHNAN, Ganapathy

For: METHOD FOR PRODUCING A 2-DEOXY-L-RIBOSE

COMMUNICATION TO EXAMINER

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the telephone conference on August 1, 2007 with Examiner Krishnan and Applicants' attorney Darleen J. Stockley, the amendments suggested for claims 2 and 3 have been accepted by the Applicants.

Also, please note that it appears that when the application was scanned into the USPTO system (i.e., how it appears in Private Pair), in claim 2 "1-4" was incorrectly scanned in as "14." Hence, in the enclosed Examiner's amendment "14" was corrected to recite --- 1-4 ---.

In view of the enclosed Examiner's amendment, there being no further outstanding objections or rejections, it is respectfully submitted that the application is in condition for allowance.

Respectfully submitted,

STAAS & HALSEY LLP

Date: August 2, 2007

By: Darleen J. Stockley
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For: METHOD FOR PRODUCING A 2-DEOXY-L-RIBOSE

EXAMINER'S AMENDMENT

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

This is in response to a telephone conference in which the Examiner suggested amendments to claims 2 and 3, and the Applicants have agreed to the changes shown below. Please note that, upon review of the scanned version in Private Pair, it appeared that, in claim 2, "1-4" was incorrectly scanned as "14". Hence, the amendment of claim 2 also corrected "14" to recite --- 1-4 ---.

The following amendments and remarks are respectfully submitted. Reconsideration of the claims is respectfully requested.

Serial No. 10/521,022

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 2 and 3 in accordance with the following:

1. (Original) A method for producing 2-deoxy-L-ribose comprising the steps of (A) protection step for preparation of 2-deoxy-1-O-alkyl-D-ribopyranoside, of which the aldehyde group in 2-deoxy-D-ribose is protected in the form of acetal, by reacting 2-deoxy-D-ribose with an alcohol in the presence of an acid; (B) activation step for preparation of 2-deoxy-1-O-alkyl-3,4-di- (alkanesulfonyl)-D-ribose or 2-deoxy-1-O-alkyl-3,4-di-(arylsulfonyl)-D-ribose, of which the 3- and 4-OH groups in 2-deoxy-D-ribose are activated, by reacting the above 2-deoxy-1-O-alkyl-D-ribose and an organic sulfonyl halide in the presence of a base; (C) inversion step for preparation of a mixture of 2-deoxy-1-O-alkyl-3-acyl-L-ribose and 2-deoxy-1-O-alkyl-4-acyl-L-ribose, in which the stereochemistry of 3-OH and 4-OH groups are inverted, by reacting the above 2-deoxy-1-O-alkyl-3,4-di-(alkanesulfonyl)-D-ribose or 2-deoxy-1-O-alkyl-3,4-di-(arylsulfonyl)-D-ribose with a metal salt of organic acid; and (D) deprotection step for preparation for 2-deoxy-L-ribose by reactions of the above mixture of 2-deoxy-1-O-alkyl-3-acyl-L-ribose and 2-deoxy-1-O-alkyl-4-acyl-L-ribose with an acid and then with a base, or with a base and then with an acid.

2. (Currently amended) The method for producing 2-deoxy-L-ribose according to claim 1, wherein the alcohol used in said protection step is a lower aliphatic alcohol having ~~14~~ 1-4 of carbon number, ~~or benzyl alcohol or substituted benzyl alcohol~~.

3. (Currently amended) The method for producing 2-deoxy-L-ribose according to claim 1, wherein the organic sulfonyl halide used in said activation step is a lower alkanesulfonyl halide ~~such as selected from the group consisting of methane sulfonyl chloride or and trifluoromethyl-trifluoro methane sulfonyl chloride, or an arylsulfonyl halide such as selected from the group consisting of benzenesulfonyl chloride or and p-toluenesulfonyl chloride~~.

4. (Original) The method for producing 2-deoxy-L-ribose according to claim 1, wherein

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the metal salt of organic acid used in said conversion step is a metal salt of lower alkyl organic acid having 1-8 of carbon number or a metal salt of aryl organic acid.